Computatio Universalis

SEU

Logica Rerum.

BEING

An Essay attempting in a Geometrical
Method, to Demonstrate an Univer-
sal Standard, whereby one may judge
of the true Value of every thing
in the World, relatively to the Per-
son.

* * * * * * * *
 * * * * * * *
  * * * * * *
   * * * * *
    * * * *
     * * *
      * *

TO THE

Royal Society.

Gentlemen,

I Have made a tryal how some few thoughts, relating to the common concerns of the World, would look in a Geometrical Dress, and take the boldness to present them to your Honourable Society. I know your readiness to Encourage all endeavours after useful Knowledge, and therefore presume you will shew some little favour to this attempt of mine, it may be, so far as to recommend it as a hint to others of a more happy Genius, to prosecute this Argument, or also a nobler Subject upon such sort of Principles as these, I have no excuse to make for the meanness of my performance, but that I know not that this was ever aim'd at by any Man till now, by

Your most Humble Servant.

A 2   Defini-

DEFINITIONS.

1 *Def.* BY time or the Age of a Man, I desire may be understood all that part of a Man's Life, which he can employ as he himself judges convenient, and therefore, after he is come to the use of Reason.

2 *Def.* By a Man's Estate, I understand all the Wealth and Riches, which in the time of his Reason he is Master of, and has at his own disposal; whether it be by the kindness of his Relations, or the Fruits of his own Industry.

3 *Def.* By Happiness, I understand all the Ease, and Satisfaction, and Pleasures which a Man can procure by his Estate, and which do not come upon him without his own choice and forecast.

4 *Def.* By Wisdom, I understand a Skill and Resolution to procure all the Happiness which is procurable by such a Man.

5 *Def.* By a Fool, I understand one who either does not know how, or does not resolve to procure all the Happiness which is procurable by him.

6 Def. By Pleasures, I mean all sorts of innocent Diversions, Conversation, Balls, Plays, Drinking, Gaming, Hunting, Hawking, and the like ; according to Mens different Fancies and Inclinations.

POSTULATA.

1 Post. THat in order to the making a better Comparison between things, it may be allowed us to fix upon some determinate number of Years, and to call that the apparent Age or Time of a Man.

2 Post. That upon the same Account, it may be allowed us to fix upon a determinate summ of Money, and to call that, the apparent Estate of a Man.

3 Post. That it may be allowed us to subduct from the apparent Time, and from the apparent Estate of a Man, all those parts of his Age and Wealth which are not at his own disposal.

4 Post. That the value of time may be expressed by a proportionable value in Money.

5 Post. That it may be allow'd us to assign different pleasures and satisfactions to the different Stages and Periods of a Man's life, and till a truer and more particular and exact one be offer'd, to make use of this following Scheme.

A 3

All School-learning, Grammer, Arithmetick, Writing, &c.	1 Part	from to	9 16
All sorts of Academical Learning, Travels, and Pleasures, and Exercises suitable to that period.	2 P.	from to	16 25
Recreations, Courtships and Pleasures suitable.	3 P.	from to	25 36
Honours, Preferments and Pleasures suitable.	4 P.	from to	36 49
Increasing of Riches, Power and Interest, and pleasures suitable.	5 P.	from to	49 64

A X I O M S.

1 *Ax.* Time is as necessary to enjoy Happiness in, as an Estate is necessary to procure it.

2 *Ax.* The same proportion that the whole Happiness of a Man's Life bears to his whole Time and Estate, the same proportion do the distinct parts of his Happiness bear to proportionable parts of his Time and Estate.

3 *Ax.* Happiness is worth as much Time, and as much Money, as are absolutely necessary to procure and to enjoy it.

Proposition 1. If a Man do live from his Birth to the end of 64 Years, that is, has 64 apparent years, his real time or true age is but 32 years.

Demonstration. Such a Man's time (by the
1 st

1st Definition) is only that part of his Life which he can employ as he himself judges most convenient after he is come to the use of Reason, and therefore (by the 3d Postulat.) I make these following subductions.

	Y.	M.	D.	H.
He is to live.	64	00	00	00
Subducted out of it, *viz.*				
1 For Childhood, before he begins to use his Reason to any purpose.	09	00	00	00
2. For Sleep, at the rate of 8 hours in 24, because he cannot employ it at he pleases in the purchase and enjoyments of satisfaction.	18	04	00	00
3. For Devotion, reckoning that as God's time.	03	06	00	00
4. For Sickness, such as disables him from taking satisfaction in the things of the World at least.	01	02	00	00
The whole summ of the Deductions.	32-	00-	0-	0
The Remainder therefore which is the Man's time, is	32-	00-	0-	0

Which was to be Demonstrated.

Pro. 2. If such a Man has an Estate of Inheritance of 120 *l. per Ann.* his whole real Estate is 4940 *l.* Sterling.

Demonstra. By the 2d Definition, his true Estate is only so much of his Wealth, as in the time of his reason he has at his own disposal,

and

and therefore (by the 3d Postulat.) I make the following subductions.

	l.	s.	d.
The whole sum arising from 120 l. per Ann. during the 64 years, without interest or any other improvements amounts to.	7680	00	00
Subducted out of it, viz.			
1. For the 9 years of Childhood.	1080	00	00
2. For Charity being God's and the poors Money, and publick Taxes being the Magistrates and his Countries Money ⁷⁄₁₀	662	00	00
3. For unavoidable expences in Sicknefs.	0100	00	00
4. For Food and Lodging juft necefsary.	0480	00	00
5. For Cloaths.	0420	00	00
The whole fum of the Deductions	2742	00	00
Taken out of	7680	00	00
The Remainder is.	4940	00	00

Which is his real Eftate
Which was to be Demonftrated.

Prop. 3. The whole Happinefs of fuch a Man's Life is worth 32 Years and 4940 *l.*

Demonstra. By the 3d Definition, the whole Happinefs of Man's Life is all the Eafe, and Pleafure, and Satisfactions which he can procure by his Eftate, during the whole time of his life. But by the 1ft Propofi. the time of fuch a Man's life is 32 Years, and by the 2d

Prop.

Prop. his Eftate is 4940 *l.* and by the 3d Axiom, Happinefs is worth as much time, and as much Money as are abfolutely neceffary to procure and to enjoyn it; therefore the whole Happinefs of fuch a Man's Life is worth 32 Years and 4940 *l.*

Which was to be Demonftrated.

Prop. 4. Such a Man is wife if he does know how, and refolves to procure as much happinefs as is worth 32 Years and 4940 *l.*

Demonftra. By the 4th Definition, Wifdom is a Skill and Refolution to procure all the Happinefs which a Man can procure. But by the 3d Prop. all the Happinefs of fuch a Man's life is worth 32 Years and 4940 *l.* therefore fuch a Man is wife if he knows how and refolves to procure as much Happinefs as is worth 32 Years and 4940 *l.*

Which was to be Demonftrated.

Prop. 5. Such a Man is a Fool, if he does not know and refolve to procure as much Happinefs as is worth 32 Years and 4940 *l.*

Demonftra. By the 5th Definition, that Man is a Fool who does not know and refolve to procure all the Happinefs which is procurable by him; but by the 3d Prop. all the Happinefs procurable by fuch a Man is worth 32 Years and 4940 *l.* therefore fuch a Man is a Fool, if he does not know and refolve to procure as much Happinefs as is worth 32 Years and 4940 *l.*

Which was to be Demonftrated.

Corol-

Corollary. Hence it follows that such a Man
is a Fool, if he lays out upon any particular
and determinate part of the Happiness of his
whole life, more of his 32 Years and 4940,
than that part of his Happiness has proporti-
on to his whole Happiness; for, by the 2d
Axiom, the same proportion that the whole
Happiness of Man's life does bear to his whole
Time and Estate, the same proportion do the
distinct parts of his Happiness bear to propor-
tionable parts of his Time and Estate. Since
therefore he is a Fool if he does not know and
resolve to procure as much Happiness as is
worth 32 Years and 4940 *l.* he must be a Fool
if he gives more of his 32 Years and 4940 *l.*
for any part of Happiness, than that propor-
tion which that part of Happiness bears to the
Happiness of his whole life; *Ergo,* he is a
Fool that lives fast. (*Quod sæpious probatum est*)
which two faults we usually tearm, living fast,
and Prodigality.

Prop. 6. Such a Man is more wise as he
comes nearer the procuring as much Happi-
ness as is worth 32 Years and 4940 *l.* and the
more a Fool as he comes shorter of procuring
of it.

Demonstra. This follows clearly from the
4th and 5th Propositions.

Problem. 1. How to express the value of such
a Man's time in Money.

By the 4th Postulation, The value of Time
may be expressed by a proportionable value
in

in Money; therefore since by the 1st Prop. the whole time of such a Man is 32 Years, and by the 2d Prop. his whole Estate is 4940 *l.* it will follow that.

	l.	*s.*	*d.*	*q.*
1. One of his Years is worth	154	07	06	00
2. One Month. (Sterl.	12	17	03	01
3. One Day.	00	08	05	01
4. One Hour about.	00	00	04	0$\frac{1}{2}$
5. One Minute.	00	00	00	$\frac{1}{13}\frac{1}{3}$ of $\frac{1}{4}$

Lemma.

That in the following Propositions, allowances may be made for the different Inclinations

A Table shewing what common Money does amount to of such a Man's Money.

viz. 7680 l. 4940 l. 11.

com. M. lib.	such a Mans Money. l.	s.	d.	q
1	00	12	10	1
2	01	05	08	3
3	01	18	07	0
4	02	11	05	2
5	03	04	03	3
6	03	17	02	1
7	04	10	00	2
8	05	02	11	0
9	05	15	09	1
10	06	08	07	3
20	12	17	03	2
30	19	05	11	1
40	25	14	07	0
50	32	03	02	3
60	38	11	10	2
70	45	00	06	1
80	51	09	02	0
90	57	17	09	3
100	64	06	05	2
200	128	12	11	0
300	192	19	04	2
400	257	05	10	0
500	321	12	03	2
600	385	18	09	0
700	450	05	02	2
800	514	11	08	0
900	578	18	01	2
1000	643	04	07	0
1000	643	04	07	0

The Table is made according to this Proportion.

As the whole time between the beginning of the 2d Period, and the end of his Life, viz. 55 Years is to his Time, viz. 32 Years; so is one Year to 212 days of his real time, and the value 89 l. 16 s. &c.

Lemma.

That in the following Propositions, allowances must be made for the different Inclinations

tions and fancies of Men and expectations in the World. But what is laid down determinately, may now pass for a good general mean.

Prop. 7. Such a Man is a Fool, if he lay out upon what Happiness may be included within the first period above 4 years and 26 days 13 hours of his time, and 628*l.* 16*s.* 6*d.* of his Money.

Demonstra. By the Corall. from the 5th Prop. such a Man is a fool if he lays out upon any particular and determinate part of the Happiness of his whole life, more of his 32 years and 4946*l.* than that part of his Happiness has proportion to his whole Happiness. But by the Scheme in the 5th Postula. it appears, that the Happiness of the first period is answerable to 7 common years, and this amounts to 4 years and 26 days 13 hours of his time, and 628*l.* 16*s.* 6*d.* of his Money; therefore such a Man is a fool if he lay out upon the 1st period, above 4 years and 26 days and 12 hours of his time, and above 628*l.* 17*s.* 6*s.* of his Money. Which was to be Demonst.

Prop. 8. Such a Man is a fool if he lays out upon the Happiness of the 2d period above 5 years and 86 days 7 hours of his time, and 808 *l.* 09 *s.* 9 *d.* of his Money.

The Demonstration is the same as of the 7th Prop.

Prop.

Prop. 9. Or if he lays out upon the Happi-
nefs of the 3d period, above 6 Years and 146
days 8 hours of his time, and above 988 *l.*
03 *s.* 01 *d.* ¼ of his Money.

The Demonftration is the fame as that of
the 7th Prop.

Prop. 10. Or if he lays out upon Honours,
Preferments and Pleafures, fuitable to the 4th
period above 7 years and 206 days 2 hours of
his time, and above 1167 *l.* 16 *s.* 4 *d.* ¼ of his
Money. The fame way Demonftrated.

Prop. 11. Or if upon the Happinefs of the
5th and laft period above 8 years and 265 days
21 hours of his time, and above 1347 *l.* 09 *s.*
8 *d.* ¼ of his Money. The fame Demonftration

Problem 2. How to exprefs the real value
of an acquired Eftate.

If fuch a Man by that time he is 30 years of
Age, having difcharg'd all former Debts and
Incumbrances, has by his labour acquired juft
120 *l. per Ann.* and is to live to 64, his Eftate
is 2245 *l.* 08 *s.* 0 *d.*

	l.	*s.*	*d.*
For 120 *l. per Ann.* the other 34 Years amounts to.	4080	00	00

Out of which (as Prop. 2.)
muft be fubducted.

1. For Charity.	408	00	00
2. For Sicknefs about.	172	00	00
3. Food and Lodging.	292	00	00
4. For Cloaths.	252	00	00

5. For the value of his time
between the 9th and 30th Year

of

	l.	s.	d.
of his Age, suppoſing that by the labour, to acquire that Eſtate 6 Hours every day came to be not at his own diſpoſal, by the 1ſt Problem about.	810	12	00
The ſum of which Deduction.	1834	12	00
Taken out of.	4080	00	00
The Remainder.	2245	08	00

Hence appears the true difference between an acquired Eſtate, and an Eſtate of Inheritance, the time ſpent in acquiring it, being converted into Money, in the above caſe being.

	810	12	00

Problem 3. To apply the foregoing Propoſitions to particular uſes, and for inſtance, by this method to find out the real value of an Horſe.

We proceed by theſe Degrees.

1. We ſet down the Man's Age who is to buy it, ſuppoſe 33.

2. The Period which it falls in here 'tis the 3d.

3. The remainder of the Money which the Man has to ſpend in the remainder of the period, which is thus found.

By the 5th Poſtulation, the common years of the 3d Period are 11, and by the 9th Prop. the Money to be ſpent in thoſe 11 Years is 988 ; therefore ſince 8 years of the 11 are now ſuppoſed to be paſt, valued at 718 *l.* $\frac{6}{11}$ not troubling our ſelves with the Fractions ; we ſubduuct the Money already ſpent, *viz.* the 718 *l.* out of 988 *l.* the whole, and the remainder will be 270 *l.* which is the ſum that is at his diſpoſal in thoſe 3 years.

4. Suppoſe an indifferent Horſe, and the Market Rate to be 10 *l.*

5. Sup-

5. Suppose him (bating Accidents) to be serviceable 10 Years.

6. Suppose the yearly charge of keeping him to be at leaft 5 *l.* and so the Money to be laid out upon him will be 60.

7. That the Pleafure, Profit, or Service which that Horfe muft do fuch a Man, that he may be no lofer by him, muft be worth of fuch a Man's Money 60 *l.* in 10 years, (that is 6 *l. per Ann.*) and so for the 3 years of the period which the Man is then in, he muft be worth 18 *l.* of his Money (for 10 *y.* 60 *l.* 3 *y.* 18 *l.*) and in the period he muft be worth 42 *l.* being the remainder, and therefore.

8. The Man muft confider what occafion he has for 270 *l.* in thofe 3 years, and whether he can wifely allow 18 *l.* being $\frac{1}{15}$ of the value of the Happinefs of the 3 years for it; and whether he may allow it or no, he may find by the Corollary of the 5th Propofition.

If he finds that he muft not allow so much, then by making fubductions for what remains to be fubducted, after taking out $\frac{1}{15}$ from 270 *l.* the remainder will be the exact fum which he may afford for the Horfe, and that will be to him the real value of it.

That is to fay, If he finds, for inftance, that befides 252 *l.* which is $\frac{1}{15}$ of 270 *l.* he fhall have occafion to lay out 10 *l.* upon other things; let him fubduct the 262 *l.* from 270 *l.* and the remainder being 8 *l.* will be the real value of the Horfe, after the fame manner the value of a Servant, Book, Garment, Watch, &c. may be found out.

Eft aliquid prodire tenus.

F I N I S.

Note, That Errata's in the Calculation, may be eafily mended by the Reader in obferving the inferences of the Reafonings.

a-
be
m

at
oy
ro
of
th
ne
nd

or
al-
ne
he

oy
d,
be
nd

es
ny
l.
al
of
nd
7

fs,
es